
	APOLLO HOSPITALS, SECUNDERABAD	COP – 04
		Issue: C
	POLICY ON USE OF BLOOD AND BLOOD PRODUCTS	Date: 06-01-2017
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PREPARED BY:  Dy. Medical Superintendent		APPROVED BY:  Chief Executive Officer

## 1.0 Purpose:

- ✓ To establish well organized blood transfusion service with quality systems in all areas and to ensure supply of blood and blood products that is safe, accessible at reasonable cost and adequate to meet hospital patient needs.
- ✓ The collection of blood only from non-remunerated donors
- ✓ To guide the staff in screening all donated blood for transfusion transmissible infections.
- ✓ To guide the staff on all quality measures to ensure safe and effective transfusion for the patients.
- ✓ To guide staff on selection of donors.
- ✓ To guide staff on appropriate handling of blood and blood products.
- ✓ To guide the appropriate disposal of blood and blood products
- ✓ To guide the rational use of blood and blood products.

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## 2.0. Scope:

These policies are to be followed by all the staff in the lab and the health care personnel responsible for transfusion in the wards, ICU's, theatre and Emergency service.

## 3.0 Responsibility:

Laboratory In-Charge (after the Blood-Bank commences, Blood Bank In-charge is responsible)

## 4.0 Procedures:


Voluntary donors as well as donors known to the patients are encouraged to donate.

All donors shall fulfill the selection criteria.

**Major conditions for donor deferral are as follows**

Conditions for deferral	Period of deferral
Abortion	6 months
H/o blood transfusion	6 months
Alcohol consumption	12 hours before donation
Minor surgery	3 months
Major surgery	6 months
Typhoid	12 months after recovery

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H/o malaria and duly treated	3 months(endemic) or 6 months(non endemic)
Tattoo	6 months
Acute nephritis	6 months after recovery
Breast feeding	6 months after delivery
H/o hepatitis in family or close contacts	6 months

### Screening and testing

- Donated blood is tested for blood group antigens/antibodies and infectious disease markers.
- ABO and Rh blood groups are determined.
- Antibody screen is performed to detect any unexpected red cell antibody.

### Infectious Disease Markers


Donated blood is tested to minimize infectivity for Hepatitis B and C viruses, HIV I & HIV II, Malarial Parasites and Syphilis.

The tests routinely performed for specific infectious diseases are listed below.

Transmissible Disease Testing of Donor Blood

Syphilis	VDRL (serological test for syphilis)
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Hepatitis	HBsAg (hepatitis B surface antigen)* anti-HCV (antibody to hepatitis C virus)*
HIV	anti-HIV-1, anti HIV-2*
Malaria	Rapid Test for Malaria by Parabank

#### Administration of Blood Components:


- Samples from potential blood product recipients shall be labeled at the bed side by the nurse who is collecting the sample. She shall verify the identity from the patient/patient attendant and from the patient files.
- The label shall contain
  - a) Full name of the patient.
  - b) Order No.
  - c) IP No.
  - d) Investigation required.
- Physician's written request shall be present in the patient file.
- Patient/legal guardian signed consent shall be filed in the patient's file.
- The order shall be entered in the computer by the nurse.

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- Cross-matching of the required number of units is done and the units made available within the time requested in the order form.
- The technologist releasing the unit verifies the identity of intended recipient – name, IP No., Sex, Age, Hospital Number, Treating Physicians name, ABO & Rh type of the recipient and unit. The unit is inspected before release. A unit which appears haemolysed, contains clots or visible gas, change in colour is not issued.
- Before transfusion the nursing staff and the duty doctor shall make similar checks.
- Units may be returned for reissue only if returned within 30 minutes of release from the Lab.
- All blood components (even FFP and cryo) shall be infused through Blood Administration set.
- Leukocyte – reduction filters shall be vertical during transfusion, shall be fed by gravity only and shall not be flushed following infusion.
- Only normal saline (0.9%) shall be used to transfuse blood. Ringer lactates solution is contra indicated because calcium in the fluid will counter act citrate and may result in clot formation.

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- Blood shall be started only by a duty doctor. Vital signs shall be obtained immediately before transfusion of each unit as a baseline.
- Avoid pre-medication with anti histamines or steroids unless there is history of repeated transfusions, history of allergic reaction in previous transfusions.
- Vital signs shall be recorded regularly.
- If a possible transfusion reaction occurs, the unit shall be stopped immediately. The unit and all attached tubing shall be returned to the blood bank along with post-transfusion sample from the patient.
- Physician shall be informed, venous access to be established, upper extremities are preferable (to avoid thrombosis and blood pooling in lower extremities). Aseptic technique is used.
- Blood is requested only when the patient is ready.
- Administration sets to be changed for every 4 units.

### **Reporting Suspected Transfusion Reactions**

Actions to be taken immediately whenever a transfusion reaction is suspected include:

- \* Stop transfusion

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- \* Report reaction to blood bank and the treating Physician.
- \* Return bag with all attached tubing
- \* Send post transfusion blood sample (both clotted and EDTA sample)
- \* Post transfusion urine may be sent later.

Immediately report all acute transfusion reactions, with the exception of mild hypersensitivity, to the doctor responsible for the patient and to the blood bank.

If you suspect a severe life-threatening reaction, seek help immediately.


Record the following information on the patient's notes:

- Type of transfusion reaction
- Time transfusion was started and the time of reaction.
- Volume, type and pack numbers of the blood products transfused.

The following samples shall be sent to the blood bank for laboratory investigations:

- Immediate post-transfusion blood samples (1 clotted and 1 anticoagulated : EDTA) shall be collected from the vein opposite the infusion site, for :
  - Repeat ABO and Rh(D) group

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- Repeat antibody screen and crossmatch
- Antiglobulin test
- Blood/component unit with infusion set to be sent to blood bank
- First specimen of the patient's urine following the reaction, shall be sent to Clinical Pathology
- Complete a transfusion reaction report form.

After the initial investigation of the reaction, send the following to the blood bank for laboratory investigations:

- Blood samples (1 clotted and 1 anticoagulated : EDTA) taken from the vein opposite the infusion site 12 hours and 24 hours after the start of the reaction.
- Patient's 24 hours urine sample.  
Record the results of the investigations in the patient's records for future follow-up, if required.

#### **Disposal of bio waste**

- All clinical and non clinical waste shall be disposed in accordance with the hospital waste disposal policy.

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